Marketing Research Report No. 997

Sales of Fluid Milk Products, 1954-72

U.S. DEPARTMENT OF AGRICULTURE/ECONOMIC RESEARCH SERVICE

ABSTRACT

New data are presented on sales of fluid milk products in the United States from 1954 through 1972. The data pertain to quantity and value of sales by producer-distributors and commercial processors, sales of individual products, butterfat content of fluid milk products, home delivery sales, and sales to away-from-home eating establishments. The methods by which these data were developed are also discussed.

Keywords: Milk, consumption, marketing.

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HIGHLIGHTS

Newly developed data indicate that total sales of all fluid milk products by all processors in the United States increased from 43.2 billion pounds in 1954 to nearly 56 billion pounds in 1972. The dollar value of these sales rose from $4.3 billion in 1954 to $6.5 billion in 1972.

Beverage milk sales increased from 42 billion pounds in 1954 to 54 billion pounds in 1972. Sales of cream and specialty products--about 1.3 billion pounds in 1954--rose to 1.5 billion pounds in 1960 and then declined by 1972 to nearly the 1954 level. Sales of sour cream, yogurt, and eggnog increased substantially, while cream sales declined.

The average butterfat content of all fluid milk products declined steadily from 3.88 percent in 1954 to 3.25 percent in 1972. The change was due in part to a decline in the average butterfat content of whole milk, but mostly to a shift toward lower fat products.

Home delivery sales have declined drastically since the mid-1950's, when they accounted for over half of all fluid milk products. By 1971, the share had declined to 19 percent. The rate of decline accelerated from an average of 1.7 percentage points per year in the 1950's to an average of 2.4 percentage points per year since 1965.

The share of fluid milk products distributed through away-from-home outlets rose from 14 percent in 1954 to 18 percent in 1971. Much of this increase was due to the expansion of the school lunch program.

SALES OF FLUID MILK PRODUCTS, 1954-72

by

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INTRODUCTION

Information on sales of fluid milk products by processors in the United States in terms of estimates of whole milk equivalent (fat solids basis) is published annually by the Statistical Reporting Service, together with Economic Research Service estimates in terms of product weight derived from the SRS estimates. ERS has now compiled a new series based largely on reported sales by processors under Federal and State regulation. It will also be published annually. The new series, together with breakdowns of sales by individual products, butterfat content, and type of outlet, is presented in the following section. The last section discusses the sources of data and development of the series.

SALES OF FLUID MILK PRODUCTS

Total sales of all fluid milk products by all processors increased from 43.2 billion pounds product weight in 1954 to nearly 53.8 billion pounds in 1966 (table 1). Total sales dropped 800 million pounds between 1966 and 1967 and then began another rise to nearly 56.0 billion in 1972. The increase over the 17-year period was 30 percent.

Sales by producer-distributors declined from 2.8 billion pounds in 1954 to 1.4 billion pounds in 1972, a drop from 6.5 percent of total sales to 2.6 percent. The remaining sales were made by commercial processors.

The dollar value of fluid milk products sold by all processors increased from $4.3 billion in 1954 to $6.5 billion in 1972 (table 2). With the exception of 1961 and 1965, sales value increased in every year.

Sales of beverage milk products increased from nearly 42 billion pounds in 1954 to 54.6 billion pounds in 1972 (table 3). They increased steadily from 1954 to 1960, then leveled off in 1961, and resumed the increase in 1962. There was another drop in 1967 and a fairly steady increase since then.

Plain whole milk accounted for most sales of beverage milk products in 1954 and was still nearly three-quarters of the total in 1972. Low-fat and skim milk and flavored whole milk increased substantially over the period. The largest increase came in low-fat milk which rose from virtually nothing in 1954 to 8 billion pounds in 1972. Skim milk sales increased more than two and one-half times and flavored milk sales nearly doubled.

Table 1--Sales of fluid milk products, by type of processor, 1954-72

Year	All processors	Producer-distributor	Commercial processor	Producer-distributor	Commercial processor
	----1,000 pounds product weight----			-----Percent-----	
1954	43,175,726	2,801,700	40,374,026	6.5	93.5
1955	44,711,980	2,546,280	42,165,700	5.7	94.3
1956	46,266,818	2,324,520	43,942,298	5.0	95.0
1957	47,363,126	2,172,060	45,191,066	4.6	95.4
1958	47,736,466	2,046,330	45,690,136	4.3	95.7
1959	48,240,069	1,951,290	46,288,779	4.0	96.0
1960	49,026,555	1,966,140	47,060,415	4.0	96.0
1961	49,020,046	1,934,460	47,085,586	3.9	96.1
1962	49,910,367	1,847,340	48,063,027	3.7	96.3
1963	51,226,915	1,771,110	49,455,805	3.5	96.5
1964	52,254,251	1,745,370	50,508,881	3.3	96.7
1965	53,096,611	1,713,690	51,382,921	3.2	96.8
1966	53,750,335	1,626,570	52,123,785	3.0	97.0
1967	52,968,122	1,647,360	51,320,762	3.1	96.9
1968	53,664,826	1,663,200	52,001,626	3.1	96.9
1969	53,953,755	1,583,010	52,370,745	2.9	97.1
1970	54,311,980	1,602,810	52,709,170	3.0	97.0
1971	54,669,120	1,462,230	53,206,890	2.7	97.3
1972 1/	56,000,840	1,428,570	54,572,270	2.6	97.4

1/ Preliminary.

Table 2--Sales value of fluid milk products, by type of processor, 1954-72

Year	All processors	Producer-distributor	Commercial processor
	----------1,000 dollars----------		
1954	4,317,297	271,008	4,046,289
1955	4,526,563	248,750	4,277,813
1956	4,823,925	229,600	4,594,325
1957	5,035,078	217,871	4,817,207
1958	5,091,917	206,111	4,885,806
1959	5,137,081	196,584	4,940,497
1960	5,227,609	200,219	5,027,390
1961	5,166,222	197,827	4,968,395
1962	5,242,539	190,118	5,052,421
1963	5,312,120	184,477	5,127,643
1964	5,374,491	182,416	5,192,075
1965	5,371,046	179,653	5,191,393
1966	5,643,628	177,800	5,465,928
1967	5,791,638	186,440	5,605,198
1968	6,008,978	192,964	5,816,014
1969	6,098,141	192,880	5,905,261
1970	6,318,614	203,770	6,114,844
1971	6,395,535	191,861	6,203,674
1972 1/	6,498,062	194,088	6,303,974

1/ Preliminary.

Table 3--Sales of individual beverage milk products, 1954-72

Year	Plain whole milk	Low-fat milk	Skim milk	Filled and imitation milk	Flavored milk and drinks	Buttermilk	Total
	1,000 pounds						
1954	38,604,960	34,240	961,460	0	1,070,850	1,218,300	41,889,810
1955	39,915,940	50,030	1,046,750	0	1,146,650	1,236,580	43,395,950
1956	41,277,190	66,510	1,182,590	0	1,188,750	1,195,880	44,910,920
1957	42,217,840	80,540	1,351,600	0	1,162,660	1,184,010	45,996,650
1958	42,382,790	192,410	1,491,710	0	1,180,050	1,159,810	46,344,770
1959	42,548,300	284,540	1,648,330	0	1,189,280	1,151,930	46,822,380
1960	42,999,350	389,180	1,830,140	0	1,200,250	1,139,730	47,558,650
1961	42,606,330	600,960	1,977,610	0	1,278,160	1,092,480	47,555,540
1962	43,039,510	840,020	2,078,490	0	1,343,060	1,159,920	48,461,000
1963	43,749,260	1,170,690	2,227,840	0	1,489,730	1,171,890	49,809,410
1964	44,205,430	1,605,890	2,336,180	0	1,570,800	1,166,260	50,884,560
1965	44,512,450	2,056,550	2,368,030	0	1,646,860	1,155,750	51,739,640
1966	44,671,870	2,769,740	2,097,370	3,100	1,720,380	1,155,030	52,417,490
1967	43,218,510	3,550,750	2,077,110	45,600	1,662,250	1,139,350	51,693,570
1968	42,705,970	4,427,400	2,207,370	163,610	1,757,620	1,142,030	52,404,000
1969	41,934,850	5,396,130	2,320,250	153,620	1,748,690	1,146,670	52,700,210
1970	41,511,710	6,162,570	2,378,400	122,490	1,762,900	1,134,950	53,073,020
1971	40,595,920	7,287,010	2,345,370	108,580	1,870,720	1,149,350	53,356,950
1972	40,536,350	8,238,830	2,635,440	96,610	1,958,660	1,152,410	54,618,300

Filled and imitation milk had a brief flurry in the late 1960's, increasing from nothing in 1965 to 163 million pounds in 1968. Since then, sales of filled and imitation milk products dropped to 97 million pounds in 1972. Sales of buttermilk have been fairly constant, although there have been some variations from year to year.

Sales of cream and specialty products were only a little higher in 1972 than they were in 1954 (table 4). However, during that period, there was an increase from 1.3 billion pounds in 1954 to 1.5 billion in 1960, followed by a steady decline through 1970.

This total includes products with substantially different movements. Sour cream, yogurt, and eggnog sales increased substantially, particularly yogurt. Half-and-half increased at a fairly rapid rate until 1961 and then began a steady decline. Creams decreased in nearly every year since 1954.

Butterfat Content

The butterfat content of fluid milk products as a group declined steadily since 1954 (table 5). Only in 1959-60 was there any deviation from the downward movement. The average butterfat content of all fluid milk products fell from 3.88 percent in 1954 to 3.25 percent in 1972. If the butterfat content had not changed over this period, sales of butterfat in fluid milk products would have been 19 percent higher in 1972 than they actually were.

The decline in average butterfat content is due, in part, to the fairly modest decline in the butterfat content of whole milk, which is far and away the most important product, and a shift toward lower fat products (table 6). The butterfat content of most products other than whole milk has not declined a great deal and, in a few cases, has actually increased--for example, heavy cream.

Type of Outlet

Home delivery was once the dominant form of distribution of fluid milk products. In the 1930's, perhaps three-quarters of all fluid milk was delivered directly to the consumer. The increasing accessibility of milk at stores, the widening spread of delivery costs and prices for home delivery compared with store delivery, and the increasing share of fluid milk going through away-from-home outlets combined to reduce the share of fluid milk products home delivered from 54 percent in 1954 to 19 percent in 1971 (table 6). There was a continuous decline throughout the period but it accelerated from an average rate of 1.7 percentage points per year in the 1950's to an average rate of 2.4 percentage points per year since 1965. These figures include fluid milk products delivered to home by producer-distributors, commercial processors, and subdealers.

Over the 17-year period, the share of all fluid milk products distributed through away-from-home outlets increased from 13 percent to 17 percent. A considerable part of this increase was due to expansion of the school lunch program. In addition, away-from-home food consumption in restaurants and other eating places increased for all foods.

Table 4--Sales of individual cream and specialty products, 1954-72

Year	Half-and-half	Light cream	Heavy cream	Sour cream and dips	Imitation sour cream	Yogurt	Eggnog	Total
	1,000 pounds							
1954	559,400	372,880	209,530	96,980	0	14,960	32,170	1,285,920
1955	604,820	351,750	205,860	100,520	0	16,850	36,250	1,316,050
1956	652,330	335,470	207,180	105,980	0	18,760	36,200	1,355,920
1557	687,560	304,070	202,100	113,490	0	21,160	38,080	1,366,460
1958	722,050	283,770	193,730	123,730	0	25,630	42,790	1,391,700
1959	748,800	264,130	183,740	136,810	0	38,330	45,850	1,417,660
1960	795,500	250,070	177,940	154,440	0	44,130	45,840	1,467,920
1961	805,960	231,360	169,190	163,310	0	48,580	46,080	1,464,480
1962	785,090	220,110	173,700	175,330	0	45,520	49,610	1,449,360
1963	773,140	192,740	167,720	184,280	0	50,240	49,420	1,417,540
1964	759,870	175,020	162,190	172,480	0	53,020	47,140	1,369,720
1965	749,180	162,420	157,210	178,750	0	60,640	48,770	1,356,970
1966	732,230	143,770	148,420	186,100	30	70,030	52,290	1,332,870
1967	687,040	125,000	138,620	182,520	730	90,230	50,440	1,274,580
1968	661,880	101,930	127,200	186,900	1,640	123,520	57,750	1,260,820
1969	632,170	90,500	113,450	189,830	1,680	168,960	56,920	1,253,510
1970	593,420	75,980	112,310	222,600	1,750	171,570	61,330	1,238,960
1971	560,910	66,610	112,490	251,320	1,910	236,290	82,640	1,312,170
1972	555,260	58,190	115,580	266,520	1,660	288,780	96,550	1,382,540

Table 5--Butterfat content of fluid milk products sold by all processors, 1954-72

Year	Fluid milk products	Butterfat	
		Quantity	Content in milk
	-----1,000 pounds-----		----Percent----
1954	43,175,726	1,675,218	3.88
1955	44,711,980	1,721,411	3.85
1956	46,266,818	1,772,019	3.83
1957	47,363,126	1,801,472	3.80
1958	47,736,466	1,791,637	3.75
1959	48,240,069	1,809,638	3.75
1960	49,026,555	1,848,507	3.77
1961	49,020,046	1,833,420	3.74
1962	49,910,367	1,856,312	3.72
1963	51,226,915	1,883,383	3.68
1964	52,254,251	1,897,303	3.63
1965	53,096,611	1,913,827	3.60
1966	53,750,335	1,916,749	3.57
1967	52,968,122	1,850,547	3.49
1968	53,664,826	1,850,529	3.45
1969	53,953,755	1,810,058	3.35
1970	54,311,980	1,802,276	3.32
1971	54,668,690	1,791,493	3.28
1972	56,000,840	1,820,029	3.25

Table 6--Sales of fluid milk products by all processors, by type of outlet, 1954-71

Year	Home delivered	Away-from-home outlets 1/	Stores and other 2/	Home delivered	Away-from-home outlets	Stores and other
	----1,000 pounds product weight----			-------Percent--------		
1954	23,317,514	5,747,047	14,111,165	54.0	13.3	32.7
1955	23,594,713	5,981,272	15,135,995	52.8	13.4	33.8
1956	23,318,833	6,690,387	16,257,598	50.4	14.5	35.1
1957	22,984,566	6,803,919	17,574,641	48.5	14.4	37.1
1958	22,304,941	6,911,975	18,519,550	46.7	14.5	38.8
1959	21,937,706	7,058,227	19,244,136	45.5	14.6	39.9
1960	21,490,817	7,434,148	20,101,590	43.8	15.2	41.0
1961	20,602,026	7,349,328	21,068,692	42.0	15.0	43.0
1962	19,742,579	7,639,295	22,528,493	40.0	14.9	45.1
1963	18,933,093	7,996,551	24,297,271	37.0	15.6	47.4
1964	17,921,376	8,519,338	25,813,547	34.3	16.3	49.4
1965	18,011,072	8,818,104	26,267,435	33.9	16.6	49.5
1966	16,385,398	9,166,691	28,198,246	30.5	17.0	52.5
1967	15,005,442	9,219,492	28,743,188	28.3	17.4	54.3
1968	13,918,244	9,345,858	30,400,724	25.9	17.5	56.6
1969	13,235,487	9,400,825	31,317,443	24.5	17.4	58.1
1970	11,899,367	9,443,077	32,969,536	21.9	17.4	60.7
1971	10,562,696	9,494,788	34,611,636	19.3	17.4	63.3

1/ Includes public eating places and institutions.
2/ Includes all types of stores, farm and plant sales to consumers, and vending machines.

Increased store sales have accounted for most of the decline in sales on home delivery routes. Total sales by all types of stores (including supermarkets, dairy stores, convenience stores, other grocery stores, delicatessens, and commissary stores) and miscellaneous outlets increased from 33 percent of the total in 1954 to 63 percent in 1971. In 1969, stores of all kinds accounted for 51.3 percent of total sales, plant and farm sales to consumers 4.3 percent, and vending machines 2.4 percent (table 7).

DATA DEVELOPMENT

Combined Products

Total sales of all fluid milk products by commercial processors for 1962-72 were computed from data on sales by handlers regulated by Federal orders and State authorities, with a small amount estimated by other means. In 1970, for example, information was available on sales of individual products accounting for 76.5 percent of total sales made by plants under Federal regulation and 19.2 percent by plants under State regulation (table 8). An additional 3 percent of sales was reported only as total Class I sales. In most States, this includes all fluid milk products. The remaining 1.3 percent of sales was estimated mostly on the basis of lists of unregulated plants and estimates of their individual plant volumes. In Hawaii (excluding Oahu) and Alaska, estimates of fluid milk product sales from locally produced milk were based on sales of Grade A milk by farmers. These accounted for only 0.1 percent of total U.S. sales in 1970.

For 1954-61, sufficient data were not available from Federal order and State regulation to follow the same procedure as for later years. An estimation procedure was developed which utilized the relationship between two different conversion factors for 1962-68. The ratio between sales of commercial processors in terms of milk equivalent as estimated by the Statistical Reporting Service (SRS) and the sales of commercial processors in terms of product weight, compiled as described in the preceding paragraph, was regressed against the ratio of the butterfat content of milk deliveries under Federal orders to the butterfat content of fluid milk products sold by handlers regulated under Federal orders. The calculated relationship was:

$$Y = 0.04 + 0.88\ X$$

where Y equals the ratio of sales in milk equivalent to sales in product pounds and X equals the ratio of butterfat in milk produced to butterfat in fluid products sold. This relationship explained over 99 percent of the variation. Sales of total fluid milk products from 1954 through 1961 were calculated using this relationship.

Sales of fluid milk products by producer-distributors were estimated from the figures reported by SRS. These were adjusted for estimated processing loss and for estimated production of herds owned by commercial processors in California, which is included in the basic data.

Table 7--Estimated distribution of fluid milk products, by type of outlet and distributor, 1969

Outlet	Commercial processor	Subdealer	Producer-distributor	Total
	Percent			
Home delivered	17.3	6.9	0.4	24.6
Plant & farm sales to consumers	3.5	--	.8	4.3
Stores:				
Supermarkets:				
Integrated	7.1	--	--	7.1
Other	23.0	.1	--	23.1
Dairy & convenience stores:				
Integrated	3.4	--	1.0	4.4
Other	2.9	.2	--	3.1
Other grocery stores and delicatessens	7.0	5.3	.3	12.6
Commissary stores	1.0	--	--	1.0
All stores	44.4	5.6	1.3	51.3
Institutional outlets:				
Military	1.6	--	--	1.6
Schools	5.2	1.3	.3	6.8
Restaurants, hotels, & institutions	8.0	.9	.1	9.0
All institutional	14.8	2.2	.4	17.4
Vending machines	1.9	.5	*	2.4
Total	81.9	15.2	2.9	100.0

*Less than 0.05 percent.

Table 8--Sales of fluid milk products by commercial processors, by source of data, 1970

Source of data	Type of regulation			Total
	Federal order	State	Unregulated	
	Percent			
Sales by individual product	76.5	19.2	0	95.7
Total Class I sales	0	3.0	0	3.0
Grade A sales by farmers 1/	0	0	.1	.1
Estimated from plant volumes	0	0	1.2	1.2
Total	76.5	22.2	1.3	100.0

1/ Hawaii (excluding Oahu) and Alaska.

Value

The value of sales of fluid milk products by commercial processors includes (1) products sold on home delivery routes by commercial processors and subdealers and valued at home delivery prices, and (2) sales to all other outlets by both commercial processors and subdealers and valued at wholesale prices. The home delivery prices were a weighted average for all containers in approximately 150 markets throughout the United States. The average value (imputed prices) of wholesale sales was determined as a residual from total sales reported in the Census of Manufactures and the Annual Survey of Manufactures.

The value of sales by producer-distributors was that reported by SRS after adjustment for processing loss and dealers' own herds in California.

Individual Products

Information is available on sales of individual fluid milk products within specified marketing areas by Federal order handlers and those under State regulation. Much of this information is summarized annually in the May Fluid Milk and Cream Report. The coverage of the reported data has changed over the years, as the scope of Federal and State regulation increased. In 1954, Federal orders covered about 37 percent of the fluid milk products sold in the United States. Most of this was concentrated in the Northeast and Midwest. Since that time, many new Federal orders have been made effective and existing ones expanded so that in 1970 nearly 77 percent of all fluid milk products were sold by handlers regulated under Federal orders.

The geographic distribution of Federal orders has changed drastically since 1954. Consumption patterns are considerably different in areas such as the South which mostly were not under Federal regulation in the early part of the period. Therefore, a straightforward approach of using whatever data were available to determine the product breakdown of fluid milk sales was not adequate. For areas under Federal regulation in 1970, a link procedure was used to estimate sales of individual products for each year back to 1954. In this procedure, sales of individual products in comparable markets in each pair of years were compared and the percentage change determined. Starting with 1970 as a base year, sales in 1969 of each product were estimated on the basis of change in sales in comparable markets between 1969 and 1970. A similar procedure was followed for each year until the entire series had been estimated.

Sales of individual products in areas under State regulation, where the data were available, were then added to the estimated Federal order distribution. This distribution was applied to the total fluid milk product sales previously determined.

Butterfat Content

The butterfat content of individual fluid milk products was estimated in three steps. Federal order figures for individual products were linked in a manner analogous to that for quantity sold. These were combined with figures

for such States as were reported, except for California. The butterfat content of individual products for these areas was applied to total U.S. sales less California, since the California figures were available only for butterfat content of all Class I milk. The California figures for butterfat in Class I milk products were then added to the preceding figures to obtain the U.S. total.

Home Delivery

Figures on the volume of milk home delivered are available from most Federal orders since about 1964 or 1965. Before that date, the data were available from a relatively small number of Federal orders. These data are compiled for 1 month in the year, usually November. A number of States provide similar information. In most cases, these figures are for home delivery by commercial processors on their own routes. However, in some cases, subdealer sales are also included. The figures for all markets were adjusted to a common basis which included home delivery sales both by commercial processors and subdealers.

For this calculation, the base year selected was 1969. Figures from all markets were reported and assembled and estimates made for the rest of the United States. Since the reported figures in most cases were for a single month, they were adjusted to reflect (1) the effects of seasonality on home delivery sales (when schools close down in the summer, home delivery sales increase as a percentage of the total) and (2) an adjustment to reflect the fact that the information is usually collected in November and, since there is a sharp downward trend in the percentage of milk which is home delivered, the November figure is lower than the annual average.

Home delivery sales in other years were estimated by compiling similar figures for comparable markets in each pair of years and linking them to the 1969 estimate for the United States.

Home delivery sales by producer-distributors were estimated for the base year from less complete data. Survey information was available from Pennsylvania and the Puget Sound marketing area in Washington State. Producer-distributors in the Puget Sound marketing area operate a substantial number of drive-in dairy stores and do relatively little home delivery business. Those in Pennsylvania are much more heavily dependent on home delivery sales. Producer-distributor sales throughout the United States were divided into those States with patterns more like those of Puget Sound and those more similar to Pennsylvania, and the distribution patterns of the two areas were applied to these figures. A similar procedure was followed in earlier years as long as the data were available from these two areas. For the earliest part of the period, the trend in home delivery sales was estimated to follow a somewhat similar pattern to that of commercial processors.

Away-From-Home Sales

Away-from-home sales of fluid milk products in 1969, the base year, for food service establishments other than primary and secondary schools and the

military were determined in a national survey. 1/ Sales to schools and the military are regularly reported in the Dairy Situation, a periodic publication of the Economic Research Service. Sales to other types of eating places not included in the survey, excluding schools and military mess halls, were estimated in relation to the total purchases of foods by this small group of establishments.

For other years, estimated sales to away-from-home eating places were derived by calculating the percentage of all sales which were made at wholesale in containers smaller than 1 quart or larger than 1 gallon. These sizes of containers are those typically used in restaurants and institutions. They are derived from the same surveys which provide information on home delivery sales. The one-month-per-year figures were adjusted for seasonal differences (primarily due to the close-down of school lunch services during the summer). Link indexes were constructed in a similar manner to that for home delivery and U.S. totals estimated as a change from the base year.

A Note on Milk Equivalents

The concept of milk equivalents was developed to deal with the problem of providing a common measure for various dairy products, so that they could be aggregated. The amount of each product is converted to the quantity of milk of the average butterfat content of all milk produced in that time period which would be necessary to make that quantity of the product. This works very well for manufactured dairy products where complete figures on production have been available for many years. However, for fluid milk products, complete sales data have not been available and the figures have involved a degree of estimation.

The butterfat content of milk accounted for in Class I is very close to that for all fluid milk products. In December 1972, a special tabulation supplied by the Agricultural Marketing Service showed that the weighted average butterfat content of all Class I milk was 3.22 percent and of all fluid milk products 3.31 percent in all Federal order markets combined. This included a number of markets, some of them quite large, in which not all fluid milk products are classified as Class I. Omitting these markets, the simple average for 54 markets was 3.18 percent butterfat in Class I milk and 3.19 percent in all fluid milk products. The average difference between butterfat content of Class I milk and that of fluid milk products in those 54 markets (ignoring signs) was 0.06 percentage point.

1/ Michael G. VanDress. The Food Service Industry: Type, Quantity, and Value of Foods Used. U.S. Dept. Agr., Statis. Bul. 476, Nov. 1971.